



## ABSTRACT OF THE DISCLOSURE

Bookmark information indicative of a time corresponding to a given time series data piece for a predetermined time, state transition information indicative of a state of the time series data piece for the predetermined time, and the time series data piece are loaded in a database. The state transition information has one of a value indicative of an online state, a value indicative of a loading state, and a value indicative of a state in which data in the data area is empty. The time series data pieces for the predetermined times are loaded in a plurality of data areas of the database in sequence of times. In accordance with a data deletion request, state transition information corresponding to a data piece of information corresponding to a data piece of interest is set to a value indicating that the data piece of interest is empty.